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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/888,188 | 06/22/2001 | I-Far Lin | LUC-308/LIN 1 | 8861 |
| 32205 | 7590 | 08/23/2005 | EXAMINER | |
| PATTI & BRILL ONE NORTH LASALLE STREET 44TH FLOOR CHICAGO, IL 60602 | | | SAM, PHIRIN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2661 | |

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 09/888,188 | Applicant(s) LIN, I-FAR | |
| | Examiner Phirin Sam | Art Unit 2661 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

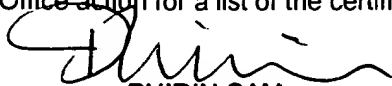
- 4) ☒ Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.


PHIRIN SAM
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 5, 7, 11, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,515,985 (hereinafter referred as “Shmulevich”).

Shmulevich discloses the invention (**claim 11**) as claimed including a method of providing a gateway between a public switched telephone network and a wireless network comprising the steps of:

- (a) converting control messages at a first location, between a packet-based protocol and a non-packet-based protocol (see Fig. 2, element 74, col. 7, lines 32-33, 42-48);
- (b) converting voice messages at a first location, between a packet-based protocol and a non-packet-based protocol (see Fig. 2, element 74, col. 7, lines 32-33, 42-48). Wherein gateway 74 receives both signaling and data (voice) and converts both signaling and data;
- (c) converting control messages at a second location, between a packet-based protocol and a non-packet-based protocol (see Fig. 2, element 78, col. 7, lines 49-65);
- (d) converting voice messages at a second location, between a packet-based protocol and a non-packet-based protocol (see Fig. 2, element 78, col. 7, lines 49-65).

Regarding claim 14, the subject matter of this claim is taught in claim 11.

Regarding claim 5, Shmulevich discloses a switch (see Fig. 2, elements gateways 74 and 78) comprising:

- (a) a first converter arranged and constructed to convert control messages between a packet-based protocol and a first protocol, wherein the first converter is located at a first geographic location (see Fig. 2, element 74, col. 7, lines 32-33, 42-47); Wherein there is a signaling converter in gateway 74 for converting these control messages;
- (b) a second converter arranged and constructed to convert voice messages between a packet-based protocol and a first protocol, wherein the second converter is located at the first geographic location (see Fig. 2, element 74, col. 7, lines 32-33, 42-47); Wherein there is a voice converter in gateway 74 for converting these voice messages;
- (c) a third converter arranged and constructed to convert control message between a packet-based protocol and a second protocol, wherein the third converter is located at a second geographic location (see Fig. 2, element 78, col. 7, lines 49-51); Wherein the signaling converter in location 2 converts this signal (control) message the proper format;
- (d) a fourth converter arrange and constructed to convert voice messages between a packet-based protocol and a second protocol, wherein the forth converter is locate at the second geographic location (see Fig. 2, element 78, col. 7, lines 49-51); Wherein the voice converter in location 2 converts this voice message the proper format;
- (e) such that the switch provides a gateway between the public switched telephone network and a wireless network (see Fig. 2, elements 74, 2, 78, 28, and 54, wherein a gateway 74 or 78 is located between PSTN 26 and the wireless network 28 and 54.

Regarding claim 7, the subject matters of this claim is taught in claim 5.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 6, 8, 9, 10, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,515,985 (hereinafter referred as “Shmulevich”) in view of US Patent 6,282,194 (hereinafter referred as “Cheesman”).

Regarding amended claims 1 and 10, Shmulevich discloses all the limitations. On the other hand, Shmulevich does not disclose a virtual tandem switch. However, Cheesman discloses the virtual tandem switch (see col. 3, lines 20-26). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the virtual tandem switch teaching by Cheesman with Shmulevich. The motivation for doing so would have been to provide to expand the traffic capacity of existing narrowband network read on column 2 lines 25-27. Therefore, it would have been obvious to combine Cheesman and Shmulevich to obtain the invention as specified in the claims 1 and 10.

Regarding amended claims 3, 9, 12, and 13, Shmulevich discloses all the limitations. On the other hand, Shmulevich does not disclose the converting a TDM protocol. However, Cheesman discloses the converting the TDM protocol (see col. 2, lines 47-50). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the converting the TDM protocol teaching by Cheesman with Shmulevich. The motivation for doing so would have been to provide for proper transmit over packet-based network. Therefore, it

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would have been obvious to combine Cheesman and Shmulevich to obtain the invention as specified in the claims 3, 9, 12, and 13.

Regarding claim 6, Shmulevich discloses all the limitations. On the other hand, Shmulevich does not disclose an ISDN User Part signaling protocol. However, Cheesman discloses the ISDN User Part signaling protocol (see Fig. 5, col. 8, lines 52-55). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the ISDN User Part signaling protocol teaching by Cheesman with Shmulevich. The motivation for doing so would have been to provide to setup, manage, and release trunk that carry voice and data between terminating line exchanges. Therefore, it would have been obvious to combine Cheesman and Shmulevich to obtain the invention as specified in the claim 6.

Regarding claim 8, Shmulevich discloses all the limitations. On the other hand, Shmulevich does not disclose a switch management system, arranged and constructed to provide operation, administration, and provisioning of the converters of the switch. However, Cheesman discloses the switch management system (see col. 2, lines 50-59). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the switch management system teaching by Cheesman with Shmulevich. The motivation for doing so would have been to provide to control and manage the bandwidth demanding read on column 2, lines 54-55. Therefore, it would have been obvious to combine Cheesman and Shmulevich to obtain the invention as specified in the claim 8.

5. Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,515,985 (hereinafter referred as "Shmulevich") in view of US Patent 6,282,191 (hereinafter referred as "Cumberton").

Regarding amended claims 1 and 4, Shmulevich discloses all the limitations. On the other hand, Shmulevich does not disclose a virtual tandem switch. However, Cumberton discloses the virtual tandem switch (see Fig. 7, element 100, col. 3, lines 24-36, and col. 7, lines 27-38). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the virtual tandem switch teaching by Cumberton with Shmulevich. The motivation for doing so would have been to provide to expand the traffic capacity of existing narrowband network. Therefore, it would have been obvious to combine Cumberton and Shmulevich to obtain the invention as specified in the claims 1 and 4.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(1) US Patent 6,765,903 (Allen, Jr. et al) discloses atm-based distributed network switching system.

(2) US Patent 6,757,278 (Bi et al) discloses secure atm-based distributed virtual tandem switching system and method.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phirin Sam whose telephone number is (571) 272-3082. The examiner can normally be reached on Mon-Fri, 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on (571) 272 - 3126. The fax number for the organization where this application or proceeding is assigned is (571) 273 -8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully submitted,

Date: August 9, 2005



PHIRIN SAM
PRIMARY EXAMINER